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7. FOR SOL	ICITATION	a. NAME							Vo collect		R DUE DATE/	
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30b. NAME AND	TITLE OF SIGNER	[3	BOC. DATE SIGNED	31b. NAME	OF CON	TRACTIN	IG OFFIC	ER		[3	1c. DATE SIGN	FD
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## Continuation of SF 1449, Blocks 18-24

Item No	Schedule of Supplies	Quantity	Unit	Unit Price	Amount
0001	Machine Launch Tube per Atch. 1,	1	EA	\$	\$
	Machined Launch Tube Forging for the				
	3.3 Inch G-Range Launcher and Drawing				
	No. VG113734				
0002	Data, Test Reports	1	LT		

If remittance is different put address here:

Continuation of SF 1449, Block 17B

# TIME OF DELIVERY

The Government requires delivery to be made according to the following schedule:

# REQUIRED DELIVERY SCHEDULE

WITHIN DAYS AFTER THE
DATE OF RECEIPT OF A

ITEM NO.
QUANTITY
WRITTEN NOTICE OF AWARD

1 EA
270 Days

1 LT
270 Days

Offers that propose delivery that will not clearly fall within the applicable required delivery period specified above, will be considered nonresponsive and rejected. If the offeror proposes no other delivery schedule, the required delivery schedule above will apply.

# OFFEROR'S PROPOSED DELIVERY SCHEDULE

		WITHIN DAYS AFTER THE
		DATE OF RECEIPT OF A
ITEM NO.	<b>QUANTITY</b>	WRITTEN NOTICE OF AWARD
0001	1 EA	Days
0002	1 LT	Days

#### CONTRACT TERMS AND CONDITIONS

# 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (AUG 2000)

- (a) The Contractor shall comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or executive orders applicable to acquisitions of commercial items:
  - (1) 52.222-3, Convict Labor (E.O. 11755);
  - (2) 52.233-3, Protest After Award (31 U.S.C 3553).
- (b) The Contractor shall comply with the FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

(Contracting Officer shall check as appropriate.)

X\_\_\_\_(1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).

\_\_\_\_\_(2) 52.219-3, Notice of HUBZone Small Business Set-Aside (Jan 1999).

X\_\_\_\_(3) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jan 1999) (if the offeror elects to waive the preference, it shall so indicate in its offer).

\_\_\_\_\_(4) (i) 52.219-5, Very Small Business Set-Aside (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994).

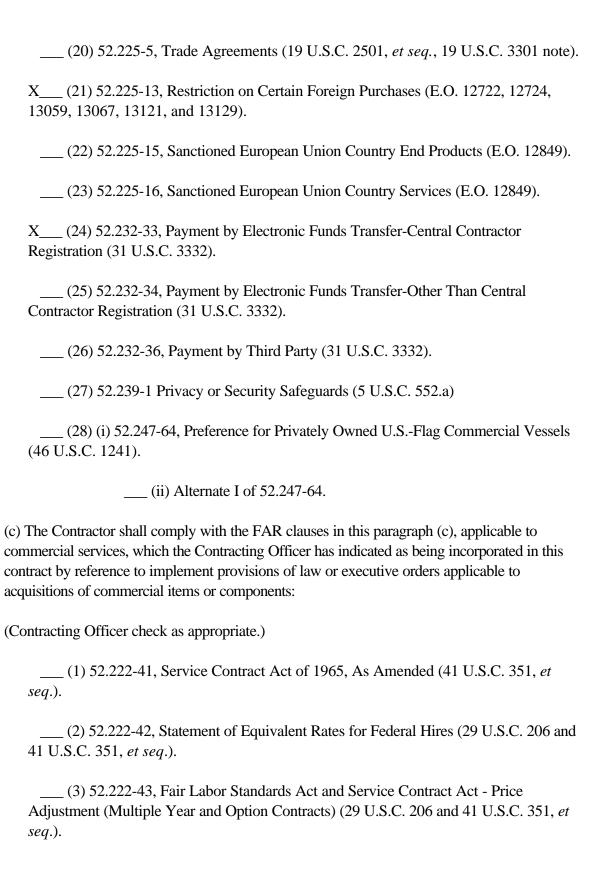
\_\_\_\_\_(ii) Alternate I to 52.219-5.

\_\_\_\_\_\_(iii) Alternate II to 52.219-5.

X\_\_\_\_\_(5) 52.219-8, Utilization of Small Business Concerns (15 U.S.C. 637 (d)(2) and (3)).

\_\_\_\_\_\_(6) 52.219-9, Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4)).

(8) (i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).
(ii) Alternate I of 52.219-23.
(9) 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
(10) 52.219-26, Small Disadvantaged Business Participation Program-Incentive Subcontracting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
X (11) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).
X (12) 52.222-26, Equal Opportunity (E.O. 11246).
X (13) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).
X (14) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).
X (15) 52.222-37, Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).
X (16) 52.222-19, Child Labor-Cooperation with Authorities and Remedies (E.O.
13126)(17)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (42 U.S.C. 6962(c)(3)(A)(ii)).
(ii) Alternate I of 52.223-9 (42 U.S.C. 6962(i)(2)(C)).
(18) 52.225-1, Buy American Act-Balance of Payments Program-Supplies (41 U.S.C. 10a-10d).
(19)(i) 52.225-3, Buy American Act – North American Free Trade Agreement – Israeli Trade Act – Balance of Payments Program (41 U.S.C. 10a-10d, 19 U.S.C. 2112 note).
(ii) Alternate I of 52.225-3
(iii) Alternate II of 52.225-3.



- \_\_\_ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, *et seq.*).
- \_\_\_\_(5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351, *et seq.*).
  - (6) 52.222-50, Nondisplacement of Qualified Workers (Executive Order 12933).
- (d) *Comptroller General Examination of Record*. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.
  - (1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.
  - (2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.
  - (3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.
- (e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--
  - (1) 52.222-26, Equal Opportunity (E.O. 11246);
  - (2) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212);

- (3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793);
- (4) 52.247-64, Preference for Privately-Owned U.S.- Flagged Commercial Vessels (46 U.S.C. 1241)(flow down not required for subcontracts awarded beginning May 1, 1996); and
- (5) 52.222-41, Service Contract Act of 1965, As Amended (41 U.S.C. 351, et seq.).

# 252.212-7001 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS (MAR 2000)

(a) The Contractor agrees to comply with any clause that is checked on the following list of DFARS clauses which, if checked, is included in this contract by reference to implement provisions of law or Executive Orders applicable to acquisitions of commercial items or components.
 \_\_\_\_\_252.205-7000 Provision of Information to Cooperative Agreement Holders (10 U.S.C. 2416).
 252.206-7000 Domestic Source Restriction (10 U.S.C. 2304).

Business Subcontracting Plan (DoD Contracts) (15 U.S.C. 637).

X\_\_\_\_\_ 252.225-7001 Buy American Act and Balance of Payment Program (41 U.S.C. 10a-10d, E.O. 10582).

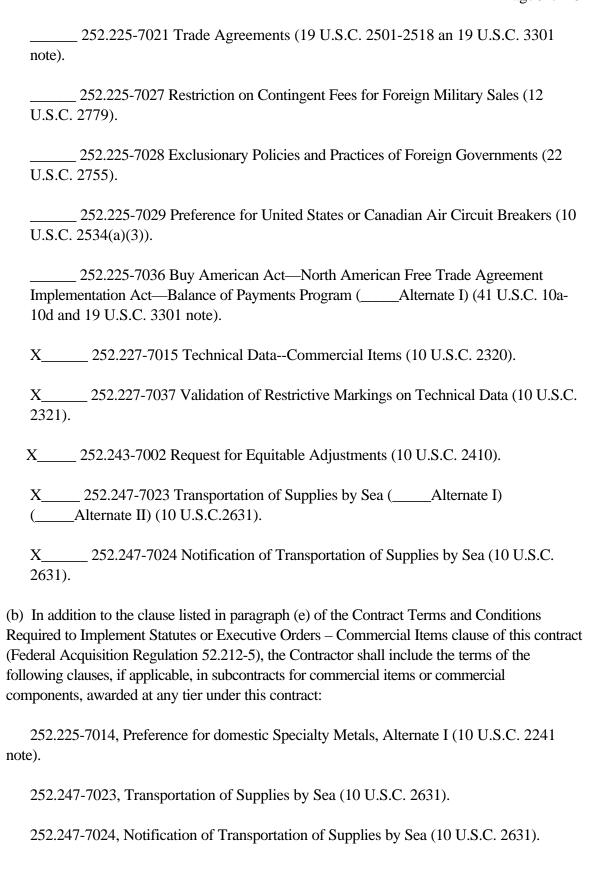
\_ 252.219-7003 Small, Small Disadvantaged Business and Women-Owned Small

\_\_\_\_\_ 252.225-7007 Buy American Act--Trade Agreements—Balance of Payments Program (41 U.S.C. 10a-10d, 19 U.S.C. 2501-2518, and 19 U.S.C. 3301 note). X\_\_\_\_\_ 252.225-7012 Preference for Certain Domestic Commodities.

X\_\_\_\_\_ 252.225-7014 Preference for Domestic Speciality Metals (10 U.S.C. 2241 note).

\_\_\_\_\_ 252.225-7015 Preference for Domestic Hand or Measuring Tools (10 U.S.C. 2241 note).

\_\_\_\_\_ 252.225-7016 Restriction on Acquisition of Ball and Roller Bearings



### SOLICITATION PROVISIONS

#### 52.212-3 -- Offeror Representations and Certifications -- Commercial Items.

As prescribed in 12.301(b)(2), insert the following provision:

Offeror Representations and Certifications -- Commercial Items (Feb 2001)

(a) Definitions. As used in this provision:

"Emerging small business" means a small business concern whose size is no greater than 50 percent of the numerical size standard for the NAICS code designated.

"Forced or indentured child labor" means all work or service-

- (1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or
- (2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process of penalties.

"Service-disabled veteran-owned small business concern"-

- (1) Means a small business concern-
  - (i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
  - (ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.
- (3) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on

Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

"Veteran-owned small business concern" means a small business concern-

- (1) Not less than 51 percent of which is owned by one or more veterans(as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and
- (2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern –

- (1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
- (2) Whose management and daily business operations are controlled by one or more women.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

- (b) *Taxpayer identification number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701)*. (Not applicable if the offeror is required to provide this information to a central contractor registration database to be eligible for award.)
  - (1) All offerors must submit the information required in paragraphs (b)(3) through (b)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).
  - (2) The TIN may be used by the government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.]

(3)	Ta	xpayer Identification Number (TIN).
	[	] TIN:
	[	] TIN has been applied for.
	[	] TIN is not required because:
	Ur	Offeror is a nonresident alien, foreign corporation, or foreign partnership that does thave income effectively connected with the conduct of a trade or business in the nited States and does not have an office or place of business or a fiscal paying agent in a United States;
	[	] Offeror is an agency or instrumentality of a foreign government;
	[	] Offeror is an agency or instrumentality of the Federal Government;
4) ′	Тур	e of organization.
	[	] Sole proprietorship;
	[	] Partnership;
	[	] Corporate entity (not tax-exempt);
	[	] Corporate entity (tax-exempt);
	[	] Government entity (Federal, State, or local);
	[	] Foreign government;
	[	] International organization per 26 CFR 1.6049-4;
	[	] Other
5) (	Coi	nmon parent.
	[	] Offeror is not owned or controlled by a common parent:
	[	] Name and TIN of common parent:

Name	
TIN	
performed inside the United States, i	wing representations when the resulting contract is to be its territories or possessions, Puerto Rico, the Trust e District of Columbia. Check all that apply.
(1) Small business concern. The not a small business concern.	ne offeror represents as part of its offer that it [ ] is, [ ] is
itself as a small business concern	ess concern. [Complete only if the offeror represented in paragraph (c)(1) of this provision.] The offeror it it [ ] is, [ ] is not a veteran-owned small business
offeror represented itself as a vet	wined small business concern. [Complete only if the teran-owned small business concern in paragraph (c)(2) of esents as part of its offer that it [ ] is, [ ] is not a service-usiness concern.
itself as a small business concern	ess concern. [Complete only if the offeror represented in paragraph (c)(1) of this provision.] The offeror purposes, that it [ ] is, [ ] is not, a small disadvantaged 3 CFR 124.1002.
as a small business concern in pa	ess concern. [Complete only if the offeror represented itself aragraph (c)(1) of this provision.] The offeror represents en-owned small business concern.
Note: Complete paragraphs (ceexceed the simplified acquisit	c)(6) and $(c)(7)$ only if this solicitation is expected to ion threshold.
only if the offeror is a women-ov	when cern (other than small business concern). [Complete when when when the business concern and did not represent itself as a paph (c)(1) of this provision.]. The offeror represents that it [concern.

(7) *Tie bid priority for labor surplus area concerns*. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to

more than 50 percent of the contract price:

\_\_\_\_\_

- (8) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. [Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.]
  - (i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).) The offeror represents as part of its offer that it [ ] is, [ ] is not an emerging small business.
  - (ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs).) Offeror represents as follows:
    - (A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or
    - (B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following):

Number of Employees	Average Annual Gross Revenues
50 or fewer	\$1 million or less
51-100	\$1,000,001-\$2 million
101-250	\$2,000,001-\$3.5 million
251-500	\$3,500,001-\$5 million
501-750	\$5,000,001-\$10 million
751-1,000	\$10,000,001-\$17 million
Over 1,000	Over \$17 million

- (9) [Complete only if the solicitation contains the clause at FAR 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns, or FAR 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting, and the offeror desires a benefit based on its disadvantaged status.]
  - (i) General. The offeror represents that either-

	small disadvantaged business concern and identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net), and that no material change in disadvantaged ownership and control has occurred since its certification, and, where the concern is owned by one or more individuals claiming disadvantaged status, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); or
	(B) It [ ] has, [ ] has not submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.
(ii)	Joint Ventures under the Price Evaluation Adjustment for Small Disadvantaged Business Concerns. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124.1002(f) and that the representation in paragraph (c)(7)(i) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture:]
(d) Representati	ons required to implement provisions of Executive Order 11246 –
(i) I	is contracts and compliance. The offeror represents that it [ ] has, [ ] has not, participated in a previous contract or subcontract ject to the Equal Opportunity clause of this solicitation; and
(ii)	It [ ] has, [ ] has not, filed all required compliance reports.
(2) Affirma	ative Action Compliance. The offeror represents that –
	t [ ] has developed and has on file, [ ] has not developed and does not have file, at each establishment, affirmative action programs required by rules and alations of the Secretary of Labor (41 CFR parts 60-1 and 60-2), or

(A) It [ ] is, [ ] is not certified by the Small Business Administration as a

- (ii) It [ ] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.
- (e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed \$100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.
- (f) Buy American Act Balance of Payments Program Certificate. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American Act Balance of Payments Program--Supplies, is included in this solicitation.)
  - (1) The offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product (as defined in the clause of this solicitation entitled "Buy American Act Balance of Payments Program--Supplies") and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products.
  - (2) Foreign End Products:

COUNTRY OF ORIGIN

[List as necessary]

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)

(1) Buy American Act -- North American Free Trade Agreement -- Israeli Trade Act -- Balance of Payments Program Certificate. (Applies only if the clause at FAR 52.225-3, Buy American Act -- North American Free Trade Agreement Israeli Trade Act -- Balance of Payments Program, is included in this solicitation.)

- (i) The offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (g)(1)(iii) of this provision, is a domestic end product as defined in the clause of this solicitation entitled "Buy American Act -- North American Free Trade Agreement Israeli Trade Act -- Balance of Payments Program" and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States.
- (ii) The offeror certifies that the following supplies are NAFTA country end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act-North American Free Trade Agreement-Israeli Trade Act-Balance of Payments Program":

NAFTA Country or Israeli End Products:

LINE ITEM NO.	COUNTRY OF ORIGIN			

[List as necessary]

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) or this provision) as defined in the clause of this solicitation entitled "Buy American Act-North American Free Trade Agreement-Israeli Trade Act-Balance of Payments Program." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

Other Foreign End Products:

LINE ITEM NO.	COUNTRY OF ORIGIN			

[List as necessary]

- (iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.
- (2) Buy American Act-North American Free Trade Agreements-Israeli Trade Act-Balance of Payments Program Certificate, Alternate I (Feb 2000). If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision: (g)(1)

(ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American Act-North American Free Trade Agreement-Israeli Trade Act-Balance of Payments Program":

Line Item No.:		
Line item No	[List as necessary]	

**Canadian End Products** 

- (3) Buy American Act-North American Free Trade Agreements-Israeli Trade Act-Balance of Payments Program Certificate, Alternate II (Feb 2000). If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:
  - (g)(1)(ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled ``Buy American Act--North American Free Trade Agreement--Israeli Trade Act--Balance of Payments Program":

Canadian or Israeli End Products

Line Item No.:	Country of Origin:

[List as necessary]

- (4) *Trade Agreements Certificate*. (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)
  - (i) The offeror certifies that each end product, except those listed in paragraph (g)(4)(ii) of this provision, is a U.S.-made, designated country, Caribbean Basin country, or NAFTA country end product, as defined in the clause of this solicitation entitled ``Trade Agreements."
  - (ii) The offeror shall list as other end products those end products that are not U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products.

Other End Products

Line Item No.:		Country of Origin:
	[List as	necessary]
(iii)	procedures of FAR Part 25. Agreements Act, the Govern designated country, Caribbe products without regard to the Balance of Payments Program only offers of U.Smade, de NAFTA country end product that there are no offers for statements.	the offers in accordance with the policies and For line items subject to the Trade ment will evaluate offers of U.Smade, an Basin country, or NAFTA country end the restrictions of the Buy American Act or the am. The Government will consider for award esignated country, Caribbean Basin country, or ets unless the Contracting Officer determines such products or that the offers for such alfill the requirements of the solicitation.
Order 12549). (A	Applies only if the contract valu	ension or Ineligibility for Award (Executive the is expected to exceed the simplified the best of its knowledge and belief, that —
	roposed for debarment, or decl	] are, [ ] are not presently debarred, ared ineligible for the award of contracts by
convicted of or criminal offer state or local statutes relatin	or had a civil judgment rendered nse in connection with obtaining government contract or subcor- ing to the submission of offers; of fication or destruction of record	be-year period preceding this offer, been diagainst them for: commission of fraud or a g, attempting to obtain, or performing a Federal, attract; violation of Federal or state antitrust or commission of embezzlement, theft, forgery, s, making false statements, tax evasion, or
(3) [ ] Are, by a Government	[ ] are not presently indicted annual entity with, commission of	for, or otherwise criminally or civilly charged any of these offenses; and

(i) The offeror, aside from the offenses enumerated in paragraphs (1), (2), and (3) of this paragraph (h), [ ] has [ ] has not within the past three years, relative to tax, labor and employment, environmental, antitrust, or consumer protection laws—

(4)

- (A) Been convicted of a Federal or state felony (or has any Federal or state felony indictments currently pending against them); or
- (B) Had a Federal court judgment in a civil case brought by the United States rendered against them; or
- (C) Had an adverse decision by a Federal administrative law judge, board, or commission indicating a willful violation of law.
- (ii) If the offeror has responded affirmatively, the offeror shall provide additional information requested by the Contracting Officer.
- (i) Certification Regarding Knowledge of Child Labor for Listed End Products (Executive Order 13126). [The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at 22.1503(b).]
  - (1) Listed End Product

Listed End Product	Listed Countries of Origin:

(2) Certification. [If the Contracting Officer has identified end products and countries of
origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i)
or (i)(2)(ii) by checking the appropriate block.]

[ ] (i) The offeror will not supply any end product listed in paragraph (i)(1) of this
provision that was mined, produced, or manufactured in the corresponding country
as listed for that product.

[ ] (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that is has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

# ADDENDA TO SOLICITATION PROVISIONS

# 252.212-7000 OFFEROR REPRESENTATIONS AND CERTIFICATIONS COMMERCIAL ITEMS (NOV 1995)

(a) Definitions.

As used in this clause

- (1)Foreign person means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec. 2415).
- (2)United States person is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concern, as determined under regulations of the President.

(b)Certification.

By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it

- (1)Does not comply with the Secondary Arab Boycott of Israel; and
- (2)Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec. 2407(a) prohibits a United States person from taking.
- (c)Representation of Extent of Transportation by Sea. (This representation does not apply to solicitations for the direct purchase of ocean transportation services).
  - (1) The Offeror shall indicate by checking the appropriate blank in paragraph (c)(2) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term "supplies" is defined in the Transportation of Supplies by Sea clause of this solicitation.
  - (2)Representation.

The Offeror represents that it

	Does anticipate that supplies will be transported by sea in the performance of
	any contract or subcontract resulting from this solicitation.
	Does not anticipate that supplies will be transported by sea in the performance
	of any contract or subcontract resulting from this solicitation.
	(3)Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense Federal Acquisition Regulation Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.
	252,225-7000 BUY AMERICAN ACTBALANCE OF PAYMENTS PROGRAM CERTIFICATE(SEP 1999)
	Definitions. "Domestic end product," "qualifying country," "qualifying country end product," and "nonqualifying country end product" have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.
	Evaluation. Offers will be evaluated by giving preference to domestic end products and qualifying country end products over nonqualifying country end products.
(c)	Certifications.
(1)	The Offeror certifies that-
(i)	Each end product, except those listed in paragraphs (c)(2) or (3) of this provision, is a domestic end product; and
(ii)	Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.
(2)	The Offeror certifies that the following end products are qualifying country end products:
Qua	alifying Country End Products
Line	e Item Number Country of Origin
(Lis	t only qualifying country end products.)

(3) The Offeror certifies that the following end products are nonqualifying country end products:

Nonqualifying Country End Products

Line Item Number

Country of Origin (If known)

# TYPE C3 SPECIFICATION

FOR

# MACHINED LAUNCH TUBE FORGING

FOR THE

3.3 INCH G-RANGE LAUNCHER FOR THE

VON KARMAN FACILITY

ATTACHMENT 1

ARNOLD ENGINEERING DEVELOPMENT CENTER
ARNOLD AIR FORCE BASE, TENNESSEE 37389-5000

#### 1. SCOPE

1.1 This specification establishes the requirements for the performance, manufacture, and acceptance of a machined steel forging for use as a launch tube on an aeroballistics range gun.

#### 2. APPLICABLE DOCUMENTS

2.1 <u>Non-Government documents</u>. The following documents form a part of this specification to the extent specified.

# 2.1.1 Standards.

- a. ANSI/ASTM A-370-89, Standard Test Methods and Definitions for Mechanical Testing of Steel Products.
- b. ASI/ASTM A-723/A723M-88, Alloy Steel Forgings for High Strength Pressure Component Application.
- c. ANSI/ASTM E-23-88, Methods for Notched Bar Impact Testing of Metallic Materials.
- d. ANSI/ASTM E-45-87, Practice for Determining the Inclusion Content of Steel
- e. ANSI/ASTM E-112-88, Methods for Determining Average Grain Size.

#### 2.1.2 Drawings.

a. AEDC Drawing No. VG113734, Launch Tube Details

#### 3. REQUIREMENTS

3.1 Item definition. The launch tube shall be a tubular steel forging, heat treated and precision machined to the dimensions and tolerances specified on the drawing. This item, when assembled, will become part of the launch system for a hypervelocity range. It is in this assembly that the model is accelerated and directed downrange.

### 3.2 Characteristics.

#### 3.2.1 Performance characteristics.

3.2.1.1 Mechanical properties. The forging material shall be heat treated to meet the minimum mechanical properties shown in the following table. Test specimens shall be in accordance with Figure 7.1, machined in a direction transverse to the longitudinal axis of the forging.

No.	Drawing No. Item	Yield Strength (ksi)	Impact CVN-RT (ft-lbs.)	Elongation 2 in. gage (%)	Reduction of area (%)
1	VG113734 -2 Launch tube	140	25	14	35

#### 3.2.2 Physical Characteristics.

- 3.2.2.1 <u>Drawing</u> The forging shall be machined in accordance with the drawing listed in 2.1.2.
- 3.2.2.2 <u>Materials</u>. Forging material shall be a vacuum-processed alloy steel which meets the mechanical provisions of paragraph 4. The chemical composition of the forging material shall be determined by the Contractor.
- 3.2.2.3 <u>Grain size</u>. The austenite grain size of the forging shall be predominantly 6 to 8 and finer, with isolated 4's not to exceed 5 percent, determination made in accordance with ANSI/ASTM E-112-88.
- 3.2.2.4 <u>Microstructure</u>. The microstructure of the forging shall be a uniform, fine-grained martensite with a maximum of 5 percent evenly distributed ferrite.
- 3.2.2.5 Bore Straightness The bore of the finished machined launch tube forging shall be free of any steps/discontinuities and straight within .006 inch per foot of length.
- 3.3 <u>Workmanship</u>. The heat-treated forging shall be free of seams, segregations, cracks, flakes, dendrites, and injurious stringers that will not be removed during final machining.

Machined surfaces, particularly the bore, threads, and pilots, shall be smooth and free of burrs/discontinuities.

#### 4 QUALITY ASSURANCE PROVISIONS.

- 4.1 Responsibility for inspection. The Contractor is responsible for the performance of all tests and inspections to ensure compliance with requirements. The Contractor shall document and provide the Contracting Officer with all inspection and test data prior to shipment of the contract items. The Government will perform the following Procurement Quality Assurance inspection at AEDC.
  - a. Inspection of all dimensions noted (I) on the drawings.

### 4.2 Tests and verifications.

# 4.2.1 Mechanical properties.

- 4.2.1.1 Contractor test wafers. Test specimens shall be removed from both ends of each tube forging in accordance with attached Figure 7.1. All test wafers except macro-structure and grain size wafers specified in 4.2.1.2, shall remain a part of each forging until final heat-treating has been completed.
- 4.2.1.2 Government test wafers. After forging, but before heat treatment, the Contractor shall send a sample wafer of both ends of each forging (see Figure 7.1) to the Contracting Officer for examination of macrostructure, determination of grain size, and inclusion examination. Immediately after heat treatment, the Contractor shall send an additional wafer from both ends of each forging to the Contracting Officer (see Figure 7.12) for confirmation of mechanical properties and microstructure. Drawing numbers shall be affixed to the wafer(s) they represent.
- 4.2.1.3 Test procedure. The test specimens noted above shall be tested in accordance with ANSI/STM A-370-89 and ANSI/ASTM E-23-88. The Contractor shall determine the transverse mechanical properties at room temperature including hardness, ultimate tensile strength, yield strength at 0.2% offset, impact strength (Charpy v-notch), percent elongation, and percent reduction of area. The Contractor shall also

determine the percent shear of the impact specimens in accordance with the procedures specified in ANSI/ASTM A-370-89.

- 4.2.2 <u>Magnetic particle inspection</u>. After final machining, each forging shall be inspected both longitudinally and circumferentially in accordance with ANSI/ASTM A-723/A723M-88.
- a. Type of current to be used is a.c. (alternating current).
- b. Application of particles shall be either wet or dry.
- c. De-magnetization is not required.
- 4.2.3 Ultrasonic inspection. After heat treatment, inspect each forging in accordance with ASTM A-723/A723M-88. Calibration criteria are as follows:

# 4.2.3.1 Straight beam (longitudinal) #8 DAC (distance-amplitude correctional).

- a. Record any indication exceeding 50% of the reference level.
- b. Record any indication exceeding the resultant back reflection.
- c. Reject any indication equip to or larger than the reference level.
- d. Reject any indication which is acompanied by a complete loss of back reflection.
- e. The test-metal distance to the flat bottom calibration holes shall be equal to approximately 25% and 75% of the anticipated scanning distance. The calibration block shall be fabricated from material which is ultrasonically similar to that being tested.

#### 4.2.3.2 Angle beam (shear).

a. 60-inch V notch x 1.0-inch long and 3% radial wall thickness deep or .25 inch, whichever is smaller.

- b. Record indications equal to or exceeding 50% of the reference level.
- c. Reject indications which exceed the reference level
- 4.2.4 <u>Inclusion content</u>. The inclusion content of each forging shall be determined in accordance with ANSI/ASTM E-45-95. The procedure used shall be Method A Microscopic Method for Use on Vacuum Processed or Other Special Quality Steel. The maximum fields shall be as follows:

MICRO TYPE	THIN	THICK	
A	2-1/2	2	
В	2-1/2	2	
C	2-1/2	2	
D	2-1/2	2	

Specimens for inclusion content shall be taken at the inside diameter of the forgings and specimens for ferrite content at mid-wall.

- 4.3. Qualty conformance inspections. Quality conformance inspections for each forging shall consist of the following:
  - 4.3.1 <u>Dimensional inspection</u>. The finished machined forging shall be dimensionally inspected to ensure compliance with 3.2.2.5 and the contract drawing specified in 2.1.1. Bore diameter for a distance of six inches from each end of the launch tube shall be recorded. All "as-built" dimensions shall recorded by the Contractor.
  - 4.3.2 Bore straightness. Bore straightness specified in 3.2.3.5 shall be determined optically. The measured centerline of the bore shall not deviate by more than .005 inch from an optically straight centerline established between any two points along the length of the bore two feet apart. Total deviation from the optical centerline at any point is the vector sum of the horizontal and vertical deviation measurements at that point. Record measurements at six inch intervals.
  - 4.3.3 In the event a non-conformance to the specification should a rise and the contract items cannot be reworked back to specification, contact the Contracting Officer or his designated representative immediately.

#### 5. REPARATION FOR DELIVERY

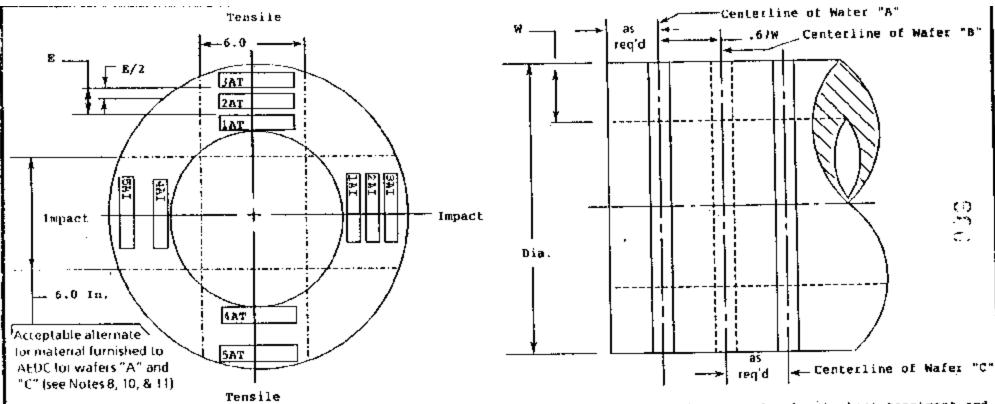
5.1 The Contractor shall provide all preservation, packaging, and packing to ensure safe delivery of the finished machined forging to AEDC. Finished surfaces shall be adequately protected to prevent marring, scratching, rust and contamination.

#### 6. NOTES

Not applicable.

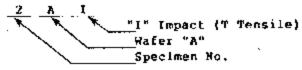
#### 7. APPENDIX

7.1 Specimen locations.



#### HOTES -

- 1. Material with 10.00 and larger O.D. and minimum wall thickness (W) of 2.12, use suitable ASTH Standard Specimens E23-68 and A370-89.
- 2. Specimens 3AT, 3AI, 5AT, and 5AI to be located within .06" of O.D.
- 3. Specimens 1AT, 1AI, 4AT, and 4AI to be located within .06" of I.D.
- 4. Specimens 2AT and 2AI to be located at E/2 as shown.
- Typ. specimen designation to be stamped on end of each specimen;



- Laboratory report to give results of each specimen examined.
- Laboratory report to include component code, serial number, drawing/part number as applicable.

- 8. Wafer "A" to be removed prior to heat-treatment and furnished to AEDC for review (see 4.2.1). Identify wafer with purchase order number and stamp "NOT HEAT-TREATED."
- Wafer "B" to be removed after heat-treatment, but prior to fabrication, for test by the Contractor (see 4.2.1.1).
- 10. Wafer "C" to be removed after heat-treatment, but prior to fabrication, and furnished to AEDC for confirmation of material condition (see 4.2.1.2). Identify wafer with purchase order number and stamp "HEAT-TREATED."
- 11. Six-inch wide test material may be furnished in lieu of entire water for forging diameters greater than 15 inches (see above sketch).

REV.	DATE	GPPD.	AEDC
А	7/12/91	AJC	von Karman Gas Dynamics Facility
		<u> </u>	FIGURE 7.1 SPECIMEN LOCATIONS